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Price sensitivity measurement depending on brand awareness: a case of Ziede brand

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Abstract

The current research aims to present a new approach of the Price Sensitivity Measurement (PSM) to determine the optimal price depending on brand awareness. Based on the example of “Ziede” cosmetics, the authors extend the classic version of the PSM by differentiating the optimal price point taking into account brand awareness. The results of the study confirm that the obtained optimal price is different across customers that are brand-aware and those who are unaware. The optimal price assessed from brand-aware consumers maintains brand value the best and allows the producer to use the opportunities for additional profits © 2014 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/3.0/>).

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1. Introduction

Being the main driver of consumer behavior and an important component of brand management, price can either make a brand profitable or destroy it. Since it primarily signals about the product quality, failing to price a product correctly can cost the producer significant losses. Oftentimes, consumers that perceive a brand that they are unaware of as being too expensive end up never buying it, while if priced too low the product raises suspicion about its features. Erdem, Keane, & Sun (2007) assert that brand awareness is associated with brand loyalty, which decreases price sensitivity and demand elasticity. The crucial task for a producer is to determine the price that matches the

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brand awareness and sustains the brand image, while maximizing demand and profits. Such a goal requires an in-depth analysis of consumers' willingness-to-pay (WTP) (Roll, Achterberg, and Herbert, 2010), in order to define consumer expectations and draw realistic upper and lower bounds of the products' price range.

Van Westendorp's PSM has been a cornerstone method in price sensitivity analysis for decades, proving to be an efficient tool in assessing consumers' perceptions about optimal prices. A wide literature covers various extensions of the PSM, as an attempt to estimate the consumer demand function. Among these, a great deal of attention was given to research led by Martin and Rayner (2008), Roll et al. (2010), and Newton, Miller, and Smith (1993). Lyon (2002) situates the PSM as being superior to other models of determining the optimal price, like monadic tests, in that its structure is less prone to sampling error and variance problems. On the other hand, Roll et al. (2010) criticizes the PSM as being unable to reason the recommended prices from a mathematical or economic perspective, proving to be efficient only in the initial research stages, but needing to be complemented in the more advanced stages by more metrical techniques.

When pricing their product, producers make the error of pooling together consumers that are brand-aware and are less price-sensitive with consumers that, being unaware of the brand, perceive price as the only decision factor, and are more price-sensitive. Averaging the optimal prices from the two groups of consumers costs the producer lost opportunities for additional profits, and, as a result, destroy the brand image. Previous researches attempt to relate brand awareness to price sensitivity, using various approaches. For instance, Oh (2000) engages an extended value model to incorporate brand awareness and price fairness, while Chen and Hitt (2001) propose a model that explains price dispersion among branded and unbranded retailers, arguing that consumers are willing to pay a premium for a product if they are aware of its brand. However, there is little evidence of the usage of the PSM to integrate brand awareness into price sensitivity analysis, due to the fact that its classic form does not account for determining specifically the value of a brand as perceived by consumers. The aim of the current study is to present a new approach of the PSM that allows to determine the optimal price depending on brand awareness.

Empirical evidence reveals that the method was applied for different industries and sectors and manifested accuracy in predicting optimal prices. For instance, Kupiec and Revell (2001) engage the PSM to estimate how consumers perceive the price of farmhouse Cheddar cheese, revealing low price sensitivity, while Gellynk and Viaene (2002) apply both the PSM and the conjoint analysis to determine the distribution of yoghurt preferences across market segments. Evidence from Carola et al. (2009) shows that PSM proves to be accurate in the hospitality sector too, serving as a very efficient substitute to the usual trial-and-error or intuitive pricing method in the restaurant business. Since the hospitality sector is subject to great competition, pricing products accordingly considerably impacts the ability of a firm to earn profits and stay solvent. The model reveals to be especially useful in the IT sector, where practical, affordable, and efficient ways of assessing consumer expectations need to be applied. The PSM uses a simple structure that quickly constructs suitable price scales, optimal points and price levels at which consumers are indifferent for any software design project (Harmon, 2003). Harmon (2007) complements the PSM with the methodology of cognitive response to incorporate customer values in the pricing tools of new products.

The evidence presented above contribute to the certainty that launching a new product to the market as well as correcting mispricing for existing products requires a thorough assessment of market perceptions to ensure that consistent profits can be earned. As observed, the implications of the model generated valuable diagnostics in various industries and sectors. However, the evidence mentioned above lacks recommendations on using PSM to determine the price that incorporates the brand awareness. The current research applies an adjustment to the classic PSM that will allow us to acquire the price in accordance to brand awareness. The insights of this research will define how a company can protect itself from generating losses and deterring customers' WTP.

2. Illustrations

The aim of the empirical research is to determine the Optimum-Price-Point (OPP) that supports the quality of a brand by differentiating the OPP for the common sample in optimal prices as assessed by consumers that are familiar with the brand (OPPf) and by consumers who are unfamiliar (OPPu). The two prices are obtained by delimitating the respondents that are familiar with "Ziede" brand from those who are not familiar.

In order to obtain the information about the optimal price, we chose a quantitative structured survey data collection approach. Since the collected data can be compared across the entire sample, the survey method allows conducting a meaningful analysis. Moreover, survey is the best way to collect authentic data when the objective sample is too large to be observed directly. The selected survey type is a direct electronic survey according to the prepared questionnaire with four standardized PSM questions. Additional demographical questions aim to draw the profile of the respondents, as well as separate them into two groups. The first group consists of respondents that are familiar with the brand, while the second group – of those who did not know about the brand before. The respondents were chosen according to a random and convenient selection process. In order to ensure the proportional representativeness of obtained results, the convenient selection process was carried out to survey respondents who use face cream for problematic skin.

The object of focus is a new line of cosmetics brand for women, which was introduced to Lithuanian market since March 2013. The current research was conducted 6 months after the inception of the new brand line.

The target population is all girls and women in Lithuania from 11 to 35 years old. The sample consisted of 152 female respondents, out of which 93 respondents (61%) are familiar with “Ziede” brand, while the other 59 respondents (39%) were not. 12% of the respondents were under 18 years old, 70% - between 19 and 25 years old, and 18% - between 26 and 35 years.

The following questions are at the core of the PSM engaged in this study’s methodology, as used by Roll et al. (2010):

1. At what price would you consider the product to be so expensive that you would not buy it? (Too expensive)
2. At what price would you consider the product to be so inexpensive that you would feel concerned about the quality? (Too inexpensive)
3. At what price would you consider the product to be starting to be expensive, but you would have to give some thought to buying it? (Expensive)
4. At what price do you perceive the product to be a bargain – of a good value for the money? (Inexpensive)

The method aims to derive four points of intersections of the price curves:

1. The Indifference Point (IPP). The number of participants who consider the product to be expensive is equal to the number of participants for whom the product is inexpensive;
2. The Point of Marginal Cheapness (PMC). The number of participants who consider the product to be expensive is equal to the number of participants for whom the product is too inexpensive;
3. The Point of Marginal Expensiveness (PME). The number of participants who consider the product to be too expensive is equal to the number of participants for whom the product is inexpensive;
4. The Optimal Price Point (OPP). The number of participants who consider the product to be too expensive is equal to the number of participants for whom the product is too inexpensive.

3. Results

The price curves and their intersections for each product category are presented in the figures below. It is common to consider the prices between PMC and PME as being a suitable price range. According to Roll et al. (2010), most of the products are typically priced within this range. The OPP is the price the producers strive to in order to increase the demand for their product and, therefore, increase their profits. Since the aim of our research is to extend the classic PSM by splitting the sample according to respondents’ awareness of the “Ziede” brand, our research produces two OPPs for the two different categories of respondents. The difference between the two shows the consumers’ assessment of the brand value.

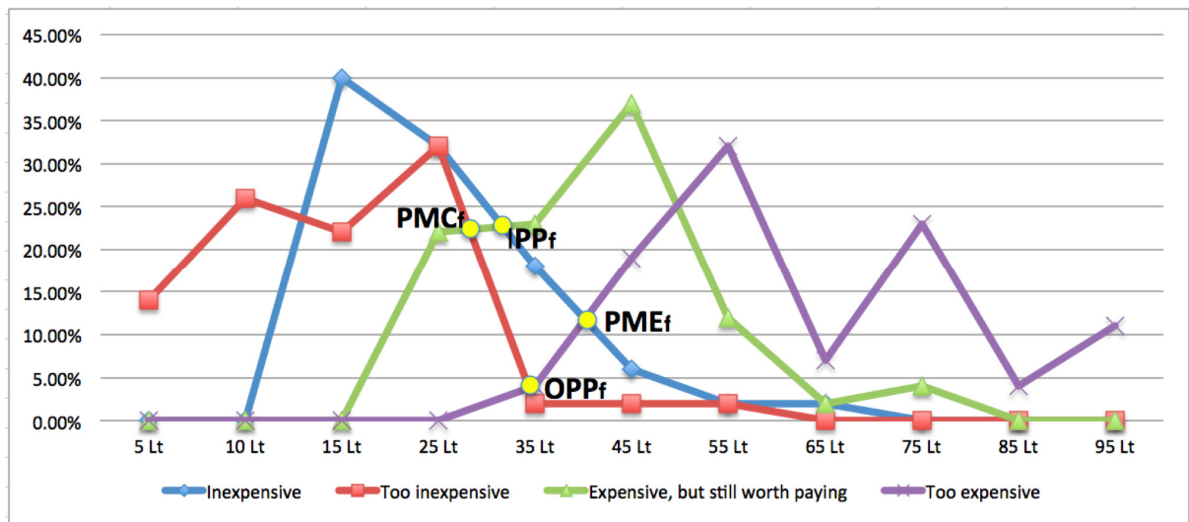


Figure 1. Price curves and their intersections for "Ziede" cream, respondents familiar with the brand.

Figure 1 shows the responses collected from consumers that are familiar with "Ziede", including former customers of the company. It can be observed that consumers do not look for the cheapest products for young skin, but try to match the price they can afford with a natural, effective, and well-recommended product. The acceptable price range for this product category is between 27 Lt and 40 Lt, while the optimal price is 35 Lt.

A different situation is observed after collecting the responses from consumers that were not familiar with "Ziede". The results met the expectations that a person who is unaware of the brand quality, tends to underpay the product.

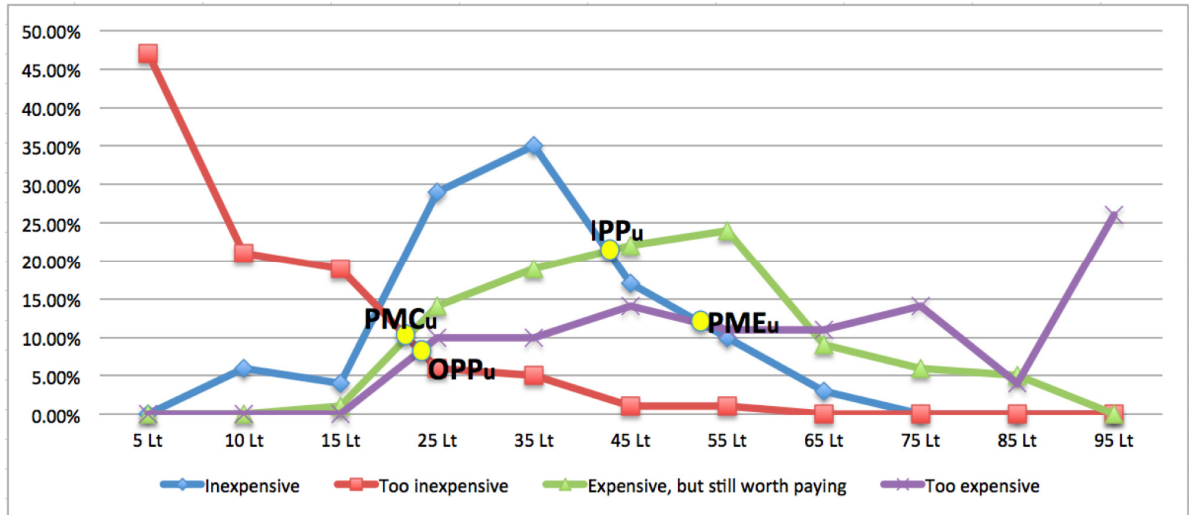


Figure 2. Price curves and their intersections for "Ziede" cream, respondents unfamiliar with the brand

In Figure 2, one can observe that the optimal price consumers would be willing to pay is only 25 Lt. The figures are rather indicative: the PMC shows the threshold, below which consumers would associate the low price with low quality and would not consider buying it, while prices above the PME are considered to be overstated. Since the purpose of the research is to determine how consumers price the brand, it is expected that the difference between

OPPf and OPPu will show the value of the brand. The difference of 10 Lt in “Ziede’s” case accounts for the value of “Ziede” brand from the consumers’ perspective.

If the survey respondents were pooled together, the optimal price would be 31 Lt. At this price, the consumers that are familiar with the brand would still buy it, as the price is even lower than their optimal price of 35 Lt. However, the consumers that are unfamiliar with “Ziede” would not buy the product, since their optimal price is still much lower than 31 Lt. Therefore, by setting the optimal price at 31 Lt, the company would have a loss of 4 Lt per unit, while not increasing its customer portfolio to the extent it could if, instead, it would set the optimal price at 35 Lt and invest in brand communication to lower the price sensitivity of the consumers that are unfamiliar with the brand. The results confirm the initial expectations that the OPPf would be higher than OPPu. The difference in the optimal prices (4 Lt) is the price that the consumers are willing to pay for the brand itself, which also assesses the brand value. The adjustment made to the classic PSM allowed us to differentiate the optimal prices across the two groups of consumers and define the value of the brand as perceived by consumers, which was the initial aim of the research. Therefore, if “Ziede’s” goal is to have a sustainable brand, the price should be set according to the brand-aware consumers’ estimation.

4. Conclusions

Over the decades, the PSM has been a common approach to define consumers’ willingness-to-pay and assess their knowledge about price. Despite that, it has encountered critique regarding its mathematical interpretation, as well as its usefulness in brand management. Empirical evidence lacks recommendations on how to implement the PSM to determine the Optimal Price Point that is able to evaluate a brand.

The present empirical research has shown the applicability of the PSM in determining the optimal price aimed to sustain the value of a brand by differentiating the OPP assessed by the common sample of respondents into OPPf and OPPu. By separating the sample of the survey respondents who are familiar with “Ziede” from those who are not, it was possible to assess the optimal prices for each category and understand to what extent consumers value the “Ziede” brand. The results of the empirical research have found that the discrepancy between the optimal prices across groups accounts for the incorporated premium that reflects consumers’ perception of the brand value.

Since price is a very important indicator of the brand value, the optimal prices for both consumer groups are quite insightful. The implications of the study suggest that the price should be set in accordance to the opinion of consumers that incorporate their estimation of the brand value into their optimal price. Failing to do so and averaging the optimal prices from the two groups of consumers instead would cost producer lost profits and destroy the brand image. Meanwhile, with additional efforts the producer can increase the awareness of the brand, lower the price sensitivity of consumers that are unfamiliar with the brand and, by this, enlarge customer portfolio.

Despite valuable insights that stem from the proposed improvement of the classic PSM, our study confronts some limitations that require further research. One of these reflects the inability of PSM to account for brands’ competitiveness. Roll et al. (2010) suggests a conjoint analysis as a potential solution for this problem, as consumers typically estimate the optimal price they are willing to pay for a product depending on the available substitute products. Another possible improvement for the current research might be extending the analysis for a wider “Ziede” product line, instead of taking only one focus product. This may allow us to define optimal prices across a larger customer profile. Combining PSM with a more quantitative technique can also help us to derive a the profit maximizing function for a given sample, at the same time complementing it with the proposed extension for a brand management approach used in this research.

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